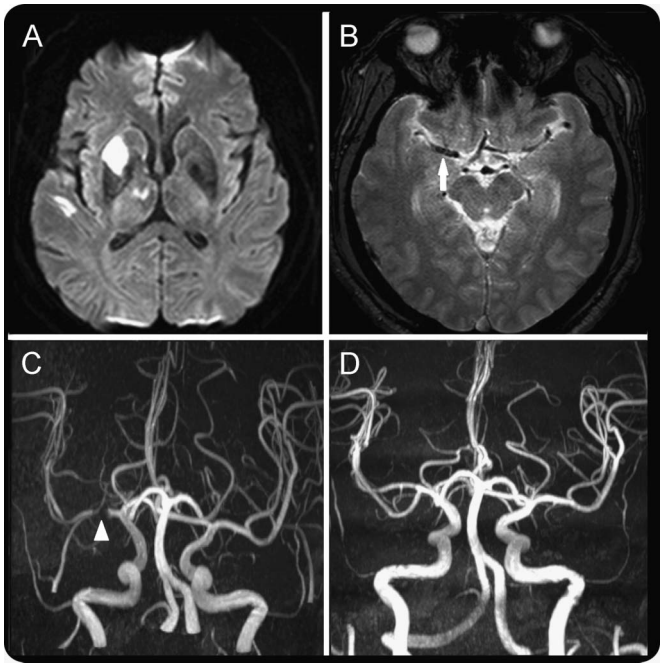
Fist-tempered common carotid artery

Chronic recurrent trauma-related changes

Figure 1 MRI



Multiple infarctions observed from diffusion-weighted image (A). Susceptible vessel sign which reflects red-cell–rich embolus (B, arrow). Initially occluded M1 (C, arrowhead) was spontaneously recanalized at 2 months follow-up (D).

A 48-year-old man without vascular risk factors presented with right middle cerebral artery infarctions and M1 occlusion, which was recanalized (figure 1). No cardiac source of emboli was detected by transthoracic and transesophageal echocardiography and Holter monitoring. There was no proximate trauma, but since he was in his 20s he had habitually hit his right lower neck with his fist when he felt discomfort in this area. Carotid ultrasonography revealed unique changes—increased intima-media thickness and aneurysm formation presumably due to chronic recurrent minor trauma (figure 2).[1] The aneurysmal sac may have provided a red-cell–rich embolic source.[2]

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Figure 2 Contrast-enhanced magnetic resonance angiography and carotid ultrasonography

Diffuse luminal irregularity with an aneurysmal change in the right common carotid artery (A, box). Diffuse increase in the intima-media thickness at the far wall (B, arrowheads) and aneurysmal dilation (C, arrowheads) with a slightly lifted small flap (arrow).

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